

We claim:

1. Apparatus comprising:

A device that is capable of automatically selecting one of a plurality of radio frequency channels for communication with other devices, wherein the selection of a radio frequency channel is performed such that radio frequency interference with other devices is reduced, wherein the selection of a radio frequency channel is communicated to other devices via a message.

2. Apparatus comprising:

Logic for scanning a plurality of radio frequency channels during a scan interval;
Logic for receiving messages on the plurality of radio frequency channels during the scan interval;

Logic for maintaining a channel map having an entry for each of the plurality of radio frequency channels, and if one or more messages was received on a channel, the corresponding entry further including a device ID for at least one of the devices that sent a message on the channel;

Logic for selecting a channel from the channel map;

Logic for transmitting messages on the selected channel during a claim interval;

Logic for receiving messages on the selected channel during the claim interval;

Logic for ascertaining whether the apparatus should commence communications with other devices on the selected channel based upon characteristics of the messages received on the channel.

3. The apparatus of claim 2 wherein the logic for maintaining a channel map further stores a power level for each device ID for each entry in the channel map, and wherein the logic for selecting a channel from the channel map selects a channel having either no device ID or a device ID that has the lowest stored power level.